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APPLICATION NO.	FILING DATE	FIRST NAME INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 880,583	06 13 2001	Franklin L. Emery	01P10732US	6763

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Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

CUEVAS, PEDRO J

ART UNIT PAPER NUMBER

2834

DATE MAILED 07 02 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/880,583

Applicant(s)

EMERY, FRANKLIN T.

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 15 May 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s): _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on May 15, 2003. These drawings are acceptable.

Specification

2. The use of the trademarks NOMEX_® and KEVLAR_® has been noted in this application. They are capitalized wherever they appear, but they are not accompanied by the generic terminology, which defines them.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,574,325 A to von Musil et al. in view of DuPont electronic publications (<http://www.dupont.com/nomex/main>).

Von Musil et al. clearly teaches the construction of an electrical isolation layer system comprising:

a first conductive material comprising a plurality of copper strands;

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a second conductive material comprising a roebel filler; and

a felt (11) having a dielectric strength of at least 300 volts per millimeter

interposed at least partially between the copper strands and the roebel filler wherein:

the felt has a dielectric strength of at least 500 volts per millimeter, and is arranged in any of the following configurations:

above the upper surface of the copper strands and below the lower surface of the roebel filler;

below the upper surface of the copper strands and above the lower surface of the roebel filler;

to sheath at least one copper strand; or

to sheath all the copper strands,

the plurality of copper strands include at least 30 roebelised copper strands and are sheathed by a porous insulating material,

the roebel filler includes a mica material,

the isolation layer has an adhesive coated on at least one side of the isolation layer; and

a strand assembly for use within a stator of a dynamoelectric machine of a power generation plant, comprising:

a plurality of roebelised conductive strands that extend along a generator length;

an insulator sheathing each of the strands;

a conductive filler at least partially surrounding the insulated strands; and

an electrical isolation layer disposed at least partially between the insulated strands and the conductive filler material wherein the isolation layer:

- has a dielectric strength of at least 300 volts per millimeter,
- comprises a nomex spun laced felt,
- has an adhesive covering at least one side of the isolation layer,
- and
- can withstand an operating temperature of at least 130° C.

However, it fails to disclose nomex spun laced felt.

DuPont teach the construction of NOMEX_® brand fibers for the purpose of providing high levels of electrical, chemical, and mechanical integrity when converted into its various sheet forms –primarily papers and pressboards- when used in transformers, motors, generators, and other electrical equipment.

It would have been obvious to one skilled in the art at the time the invention was made to use the NOMEX_® brand fibers disclosed by DuPont on the electrical isolation layer system disclosed by von Musil et al. for the purpose of providing high levels of electrical, chemical, and mechanical integrity when converted into its various sheet forms –primarily papers and pressboards- when used in transformers, motors, generators, and other electrical equipment.

5. With regards to claims 17-20, Smith et al. also disclose the steps and procedures (method of forming) to prepare the conductive felt for use in high voltage generator coils comprising:

- sheathing a plurality of conductive strands with an insulating material;
- roebelling the insulated strands;

arranging an electrical isolation layer at least partially over the insulated strands;
and

arranging a conductive filler at least partially over the insulated strands whereby
the isolation layer electrically isolates the strands from the filler wherein the isolation
layer:

is arranged above the upper surface of the insulated strands and below the
lower surface of the insulated strands,

sheathes the insulated strands, and

the insulator used to insulate the strands has a porous open weave,

as shown in Figure 3, clearly stated in the abstract, and explained in the presented examples 1-4
covered in columns 3-6.

Response to Arguments

6. Applicant's arguments filed May 15, 2003 have been fully considered but they are not
persuasive.

7. In response to applicant's argument that the Applicant's present invention is directed to
an electrical isolation layer and teaches using the isolation layer to electrically isolate or insulate
two conductive materials from each other, a recitation of the intended use of the claimed
invention must result in a structural difference between the claimed invention and the prior art in
order to patentably distinguish the claimed invention from the prior art. If the prior art structure
is capable of performing the intended use, then it meets the claim. In a claim drawn to a process
of making, the intended use must result in a manipulative difference as compared to the prior art.

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See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

8. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., bleeding) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
June 30, 2003

KARL TAMAI
PRIMARY EXAMINER

